

# Knowledge Management Practices and its Effect on Firm Performance: A Case of Commercial Banks' Performance in Kisumu City, Kenya.

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## Abstract

Knowledge Management has become an important strategic weapon for sustaining competitive advantage in firms. Banking statistics in Kenya indicate only 25 percent of customers believe their banks' act on their best interests with 5 percent employee turnover annually. This had hampered Banks' competitiveness and performance. Effective Knowledge Management promotes knowledge creation, knowledge sharing, knowledge acquisition and knowledge retention to maintain customer satisfaction and organizational performance. However little is known about Knowledge Management Practices in Kenyan Banks. The overall objective of this study was to analyze the effects of knowledge management practices on commercial banks' performance in Kisumu city in Kenya. Specifically the study sought to establish the extent of knowledge creation; knowledge sharing; knowledge acquisition, level of organizational performance and determine the relationship between organizational performance and knowledge creation; knowledge sharing and knowledge acquisition in commercial banks in Kisumu city. The target population was 20 commercial banks operating within Kisumu City with a sampling frame of branch managers and operational managers. Data was collected by use of questionnaires and analyzed by descriptive statistics and correlation analysis. The study found there is significant relationship between knowledge creation and organizational performance ( $r=0.614$ ,  $p<0.001$ ). A significant positive relationship as also found to exist between organizational performance and knowledge sharing ( $r=0.501$ ,  $p<0.005$ ).

**Keywords:** Knowledge Management, Knowledge Creation, Organizational Performance, Employees, Learning.

## 1. Introduction

Companies have been trying to differentiate themselves based on unique production processes, rare and distinct skills, creativity, and now on management initiatives such as Supply Chain Management, Customer Relationship Management, Knowledge Management (KM) and Total Quality Management. KM is increasingly becoming an important strategic weapon for sustaining competitive advantage of organizations. In Africa, and Kenya in particular, there is no clear indicator (s) on how much KM Practice has been implemented in organizations for better performance. Hafizi and Hayati (2006) state that even in Europe, KM is at infancy. In Europe, only 20% of banks currently apply a KM practices due to "wait and see" attitude of what will be the true benefits and pitfalls from early adopters. Banking statistics in Kenya indicates that only 25 percent of customers believe their banks' are acting in their best interests, 42 percent say they had switched banks because of poor services and handling of bank's employees, and some banks report a 5 percent employee turnover annually. Effective KM has been suggested as a way of promoting knowledge creation, knowledge acquisition, knowledge sharing, knowledge retention as well as customer satisfaction and therefore organizational performance. However, some organizations have articulated it as unsustainable way due to relatively little empirical support for the impact of KM on the organizational performance. This is attributed to lack of deliberate conscious step on the part of banks to interrogate the relationship between KM and firm performance. This paper presents the effect of KM practices on firm performance with a case of banks' performance in Kisumu City in Kenya.

This paper looks at the concept of KM, improving organizational performance through KM in financial and commercial banking Sector. Findings focus on the extent of knowledge creation, knowledge sharing and knowledge acquisition practices, establish the level of organizational performance and determine the relationship between organizational performance and KM in commercial banks in Kisumu city.

## 2. The Concept of KM

Knowledge can be termed as tacit knowledge that is the knowledge in people's heads and it is hard to explain or communicate with other people, and on the other hand explicit knowledge is that knowledge which can be expressed in text form or by speaking (Smith, 2001). KM deals with the acquisition, handling, and use of explicit knowledge as well as the management of tacit knowledge in terms of improving people's capacity to communicate and collaborate with one another (Al-Hawamdeh, 2002). According to Davenport and Prusak, (1998), KM is focused on processes and mechanisms for locating and sharing what an organization or its external stakeholders know. The ability to share internal best practices is important to overall organizational

performance (Szulanski, 1996), and exploiting external knowledge is crucial in driving new product innovation (von Hippel, 1994) and to organization performance in general, Sher and Lee, (2004). To this end, items were included to measure the extent to which the organization is able to identify internal sources of expertise, transfer best practice throughout the organization, and exploit external knowledge of stakeholders such as customers. The importance of knowledge lies in the creativity value that it adds to the organization's assets, and in its ability to improve the effectiveness of an organization's intellectual capital which defined as the sum of a organization's ideas, inventions, technologies, general knowledge, computer programs, designs, data skills, processes, creativity, and publications (Sullivan, 1999). In general KM concentrates on processes such as creating, sharing, and acquiring knowledge, and the cultural and technical bases that support them. An understanding of the knowledge concept is crucial since it is what organizations are attempting to manage.

### **3. Improving Organizational Performance through KM**

For Van de Ven (2005), the success of KM in an organization depends on effective knowledge sharing practices, and classifying knowledge on the basis of its strategic benefits. To transform knowledge-incentive structure to knowledge-based structures it is necessary to make knowledge more visible and easily accessible to the employees. Sharing knowledge contributes to a more individual awareness of specific situations and contributions. A social constructionist considers that all individuals are constantly interacting with other individuals within the organization irrespective of the nature of its business or the economic sector. Thus, there is a constant two-way exchange of knowledge and experience between individuals and collective knowledge with an interactive social process of creating and sharing knowledge. Nonaka (2004) argues that new knowledge creation will benefit both employees and their organizations, of which they are an integral part. The dissemination of knowledge is dominated by the system used in the organization. In other words, the information technology uses the local network or the Internet. The organization then has to select the best information to use so as to achieve an effective respite, capturing and avoiding as much as possible inefficiency in the decision making process (Barney, 2002). KM efforts have a long history, to include on-the-job discussions, formal apprenticeship, discussion forums, corporate libraries, professional training and monitoring programs. More recently, with increased use of computers in the second half of the 20<sup>th</sup> century, specific adoptions of technologies such as knowledge bases, expert systems, intranets, and computer supported cooperative work have been introduced to further enhance such efforts. In 1999, the term personal KM was introduced which refers to the management of knowledge at the individual level (Wright, 2005).

#### *3.1 Contribution of KM*

KM efforts typically focus on organizational objectives such as improved performance, competitive advantage, innovation, the sharing of lessons learned, integration and continuous improvement of the organization. KM efforts overlap with organizational learning, and may be distinguished from that by a greater focus on the management of knowledge as a strategic asset and a focus on encouraging the sharing of knowledge. KM efforts can help individuals and groups to share valuable organizational insights, to reduce redundant work, to avoid reinventing the wheel per se, to reduce training time for new employees, to retain intellectual capital as employee's turnover in an organization, and to adapt to changing environments and markets (McAdam & McCreedy, 2000), (Thompson & Walsham, 2004). The success of KM will not take place without the collective work of many enablers. These include the extent that the management believes in KM effects, the information technology used, human resource management, and the culture of the organization. In fact, any KM system will include these variables to make knowledge-related organizational functions workable (Bieber, et.al, 2002). On the employees' or even the management side, sharing knowledge or information may not be encouraged by both sides until or unless they recognize its benefits or effects in solving problems or its use within the decision making process. The problem may be exacerbated depending upon the organizational structure and the willingness of departments to cooperate and contribute in knowledge sharing, either individually or collectively. Employees' skills or experience represents the other side of the coin in exploiting creating and benefiting from the new knowledge developed within the organization. When both sides (such as employees and management) underestimate knowledge effects, knowledge becomes a second priority, and such situation is a barrier in sharing (King and Lekse, 2006).

#### *3.2 Skills for Managing KM*

Management or leadership is essential to stimulate employees' motivation to access the various sources of knowledge and encourage them of knowledge sharing. Again information technology is a vital factor to support the process of storing and distributing knowledge for sharing. An organizational structure reflects the organization's policy in discussing with its employees and in absorbing new ideas and experience within and outside its capacity. Within the organization all employees need to develop related KM skills and experience; for example, retrieving knowledge for a situation so as to make a decision. Part of these skills is information technology skills and issues related to managerial issues such as time management (Gold et al, 2001). Banks are

investing large amounts of money in the development of KM systems of which intranets; document management systems and data warehouses are the most popular technologies (McCune, 1999). When these systems are applied correctly by following a knowledge-centric approach with the necessary emphasis on information technology, as well as creating an environment conducive to knowledge creation and sharing, companies often experience a large increase in performance in terms of profit growth. The existence of trust between parties is believed to play a key role in facilitating learning. Trust among partners that develops from common previous experience, common socialization routines, or similarity in technology profiles appear to create the necessary familiarity among partners, which in turn facilitates KM, knowledge exchange and learning. If group leaders could be identified as coaches while the members of the group were brought to see themselves as important members of the team, barriers to knowledge dissemination might be overcome. Top management commitment is a determinant factor of KM. According to Salomann et al. (2006), some managers would encourage an organization culture whereby employees are willing and are motivated to create knowledge, share knowledge with others and make use of knowledge provided by others as well. Based on case studies, some authors found that while some managers pay attention to information gathering and sharing, there is a tendency among other managers to overemphasize information acquisition and to under-emphasize information interpretation that is conducive to knowledge creation (Chao Ton Su et al 2006). Such attitude is not congruent with productive KM.

#### **4. KM in the Financial and Commercial Banking Sector.**

In twenty-first century, competition in the banking industry is intense because of advantages technology is bringing along. However, high cost is an implication and therefore banks need to optimize available resources to gain profitability. KM is one of interesting alternatives as it can deliver competitive advantage such as greater competencies and synergy, more balanced decisions and less error, more creativity and innovation, broader collaboration and knowledge sharing, and easier links to expertise and deeper understanding. KM has been used in most product-based companies and it has also extended to service sector (Nonaka et. al, 2002). Banks are investing large amounts of money in the development of KM Systems of which intranets; document management systems and data warehouses are the most popular technologies (McCune, 1999). When these systems are applied correctly by following a knowledge-centric approach with the necessary emphasis on information technology, as well as creating an environment conducive to knowledge creation and sharing, companies often experience a large increase in performance in terms of profit growth. Banking management is trying with the utmost capacity to capture, manage and construct suitable information into its organizational knowledge to improve the quality of its operations. Eventually, this will enhance the rules of modern banking institutions in the economy (Kogut, 2000). The practices of KM in the banking industry will enable these institutions implement appropriate strategies within the financial system. Expertise in the first level of management will leverage the available optimum capacity of their organization, and enhance and reshape their policy in the long-term. Banking statistics in Kenya indicates that only 25 percent of customers believe their banks' are acting in their best interests, 42 percent say they had switched banks because of poor services and handling of bank's employees and some banks report a 5 percent employee turnover annually (KCB, 2010).

According to an International Data Corporation's (IDC) survey conducted across more than 600 banks in Western Europe, only 20% of banks currently apply a KM Principle (Blesio & Mognani, 2000). Knowledge is important to the success of Organizations in raising its quality of service and competitiveness. Competitive edge is abundance of company's suggestion attractiveness from the customer's point of view in comparison with other rivals (Lisman et al., 2004: 17-35). Knowledge is needed by Bank in making decisions and policies that provide guidance to frontline employees in servicing bank customers and guidance to managers in assessing the performance of frontline employees. KM implies adaptive actions by quickly detecting complaint and establishing customer satisfaction. With regard to learning from failure, KM uses complaints as learning instances and improving opportunities. KM is intended to promote and support the creation of new knowledge, thus contributing to innovation, an essential ingredient in banking success. Thus the purpose of this research is to analyze the effect of KM integration in the Banking Sector performance.

#### **5. Methodology**

The research used an exploratory design with the area of study being Kisumu City. Kisumu is the third largest city in Kenya founded in 1901, with an estimated population of 500,000. The city is located in Western Kenya on the shores of Lake Victoria and covers a total area of 417 Km<sup>2</sup> of which is 297 Km<sup>2</sup> is land and 120km<sup>2</sup> is water mass. The city was founded in 1901 and currently serves as the capital of Nyanza Province and Kisumu District. The population of the study was 20 commercial banks within Kisumu city with a total population of 417 employees. Two respondents were picked by random sampling from each bank i.e. one bank manager and one operations manager bringing the total to 40 respondents. Structured and semi structured self administered questionnaire were used capturing both qualitative and quantities data. Secondary sources of data included books, press releases, journals, and periodicals among others. Multiple Regression and Pearson's correlation analysis were used to analyze data. Contingency tables and principal component were used to test the relationship among variables.

## 6. Findings

To analyze the effects of KM practice on commercial banks' performance the research aimed at evaluating the extent of knowledge creation, knowledge sharing and knowledge acquisition practices, establishing the level of organizational performance and determining the relationship between organizational performance and KM in commercial banks in Kisumu city.

### 6.1 Extent of knowledge creation, knowledge sharing and knowledge acquisition practices in commercial banks in Kisumu city

Knowledge creation among commercial banks was measured in two dimensions i.e. respondents ranking effectiveness of their banks on improvement of tools to support KM practices and ranking the extent to which banks promote creativity and promotion of new ideas and effective conversion of those ideas into new services respectively.

Table 1 and Table 2 show the responses of respondents' *rating of effectiveness of banks on improvement of tools to support KM practices* and the extent to which banks promote creativity and promotion of new ideas and effective conversion of those ideas into new services respectively.

*Table 1. Effectiveness of bank in improving staff development tools*

Response	N	percentage
Very ineffective	0	0.0%
Ineffective	3	13.0%
Somewhat effective	7	30.4%
Effective	10	43.5%
Very effective	3	13.0%
Total	23	100.0%

Majority of the respondents' banks (43.5%) had effective staff development tools to support management practices. Only 13% of the respondents were of the opinion that their banks were not effective in *improving its staff development tools to support knowledge practices* while 30.4% were not sure of the effectiveness as they took the neutral position. When asked about the position of the banks in *promoting the creativity and expression of new ideas and the conversion of such ideas into new services*, 52% of the respondents agreed that their banks were good at doing so. This implies that generally, banks were above average in promotion of creativity among their employees. Table 2 summarizes the responses of the respondents regarding promotion of creativity among its employees.

*Table 2 Level of promotion of creativity and expression of new ideas and its conversion into new services*

Response	N	percentage
Poor	0	0.0%
Fair	0	0.0%
Good	12	52.2%
Very good	9	39.1%
Excellent	2	8.7%
Total	23	100.0%

### 6.2 Extent of knowledge sharing in the bank branch

In response to the extent of knowledge sharing in the bank branch, majority of respondents (65.22%) agreed that their banks had mechanisms for knowledge sharing. On the other hand 57.0%, agreed employees participate in project teams. It is also clear that most banks (52.17%) are neutral on the use of internets, intranets and extranets to support knowledge access and exchange. Table 3 represents this information.

*Table 3 Knowledge sharing mechanism among different functional level, employees participation in project teams with external experts and use of Internets for knowledge access*

<b>Responses</b>	<b>Mechanisms for knowledge sharing</b>		<b>Participation in project teams</b>		<b>Use of Internet for knowledge access</b>	
	N	%	N	%	N	%
Strongly disagree	0	0	1	4.35	0	0.0
Disagree	1	4.35	2	8.7	3	13.03
Neutral	4	17.39	6	25.6	12	52.17
Agree	15	65.22	13	57.00	5	21.76
Strongly agree	3	13.04	1	4.35	3	13.04
Total	23	100	23	100	23	100.0

### 6.3 Extent of knowledge acquisition in the bank branch

In terms of knowledge acquisition, 73% of the respondents agreed that the bank has formal processes for acquiring knowledge about their customers and competitor within and outside their domain, employees were neutral (65%) that banks acquires information from external sources and bank always encourages employees to attend fairs and exhibitions regularly (56%). This is summarized on Table 4.

*Table 4 Formal processes for acquiring Knowledge about customers and competitors, acquiring information from external sources, and Employees attending fairs and exhibitions*

<b>Responses</b>	<b>Formal process of acquiring knowledge</b>		<b>Acquisition of knowledge from external sources</b>		<b>Employee attendance of fairs and exhibitions</b>	
	N	%	N	%	N	%
Strongly disagree	0	0.0%	0	0.0%	1	4.3%
Disagree	2	8.7%	0	0.0%	4	17.4%
Neutral	2	8.7%	15	65.2%	13	56.5%
Agree	17	73.9%	7	30.4%	3	13.0%
Strongly agree	2	8.7%	1	4.3%	2	8.7%
Missing	0	0.00%	0	0.00%	0	0.0%
Total	23	100.0%	23	100.0%	23	100.0%

### 6.4 Level of organizational performance

The second objective of the study was to establish the level of organizational performance in commercial banks in Kisumu city. The organizational performance was measured by five questions in the research instrument. These questions looked at performance from the perspective of employee turnover, increase in customer base, branch profit, ATM transactions and customer complaints. Respondents indicated growth of three the measures of organization performance over the last 2 years were below 20% i.e. the employee turnover rate, increase in customers and branch profit. Increase in number of ATMs however was between 21 and 40%. Table 5 shows the responses.

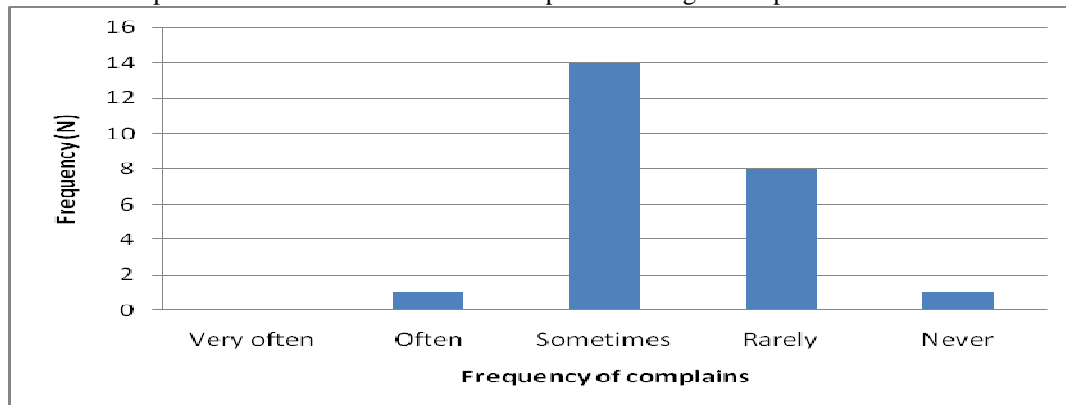
*Table 5 level of Employee turnover rate, Increase in customers, Increase in branch profit, Increase in number of ATM s*

<b>Responses</b>	<b>Employee turnover rate</b>		<b>Increase customers</b>		<b>in Increase in branch profit</b>		<b>Increase in no. of ATMs</b>	
	N	%	N	%	N	%	N	%
0%- 20%	15	65.2%	10	43.5%	11	47.8%	8	38.1%
21%-40%	5	21.7%	7	30.4%	7	30.4%	10	47.6%
41%-60%	2	8.7%	3	13.0%	0	0.0%	2	9.5%
61%-80%	0	0.0%	3	13.0%	3	13.0%	1	4.8%
81%-100%	0	0.0%	0	0.0%	1	4.3%	0	0.0%
Missing	1	4.35%	0	0.0%	1	4.3%	0	0.0%
Total	23	100.0%	23	100.0%	23	100.0%	21	100.0%



### 6.5 Extent of customer complaints in the bank branch

Respondents also indicated the extent to which bank customers complain and 14 indicated sometimes. Figure 1 below shows the response on the extent of customer complaints among the respondent banks.



### 5.6 Relationship between organizational performance and knowledge creation, knowledge sharing and knowledge acquisition

Finally the study determined the relationship between organizational performance and knowledge creation, knowledge sharing and knowledge acquisition in commercial banks in Kisumu city. This objective was actualized by running a correlation analysis of the three variables. Table 6 shows the results of correlation.

Table 6 Relationship between organizational performance and knowledge creation, knowledge sharing and knowledge acquisition

Variables		1	2	3	4
Knowledge sharing	(1)	1.00**			
Knowledge creation	(2)	.660**	1.00**		
Knowledge acquisition	(3)	.550**	.380*	1.00**	
Organizational performance	(4)	.501*	.614**	-.082	1.00**

\*\*correlation is significant at 0.01 (2-tailed)

\*correlation is significant at 0.05 levels (2-tailed)

The results indicate that there is a positive relationship between organizational performance and knowledge sharing ( $r=0.501$ ,  $p<0.05$ ). There was also a positive relationship between organizational performance and knowledge creation ( $r=0.614$ ). This relationship is significant at 99% confidence level ( $p<0.01$ ). However, the results revealed no significant relationship between organizational performance and knowledge acquisition.

## 7. Discussion

### 7.1 Extent of knowledge creation, knowledge sharing and knowledge acquisition practices

The first objective sought to determine the extent of knowledge creation, knowledge sharing and knowledge acquisition practices in commercial banks in Kisumu city. Over 43.5% of the respondents' had effective staff development tools to support management practices. Only 13% of the respondents were of the opinion that their banks were not effective in improving the staff development tools to support knowledge practices. Knowledge sharing practice variable had 3 questions that were based on a Likert Scale of five options. Most of banks' respondents (65%) agreed that their banks had formal mechanism that guaranteed the sharing of best practices among different level activity, while 4.3% disagreed, 57% respondents agreed that their banks encourage employees to participate in project teams with external experts contrary to 4.4% respondents who strongly disagreed. Sharing knowledge contributes to a more individual awareness of specific situations and contributions. KM efforts can help individuals and groups to share valuable organizational insights, to reduce redundant work, to avoid reinventing the wheel per se, to reduce training time for new employees, to retain intellectual capital as employee's turnover in an organization, and to adapt to changing environments and markets (McAdam & McCreedy, 2000), (Thompson & Walsham, 2004). The ability to share internal best practices is important to overall organizational performance (Szulanski, 1996), and exploiting external knowledge is crucial in driving new product innovation (von Hippel, 1994) and to organization performance in general, Sher and Lee, (2004).

To measure the extent of knowledge acquisition, 73.9% of the respondents agreed that their banks' had formal

processes for acquiring knowledge about their customers and competitor within and outside their domain. Knowledge is important to the success of Organizations in raising its quality of service and competitiveness. Competitive edge is abundance of company's suggestion attractiveness from the costumer's point of view in comparison with other rivals" (Lismen et al., 2004). KM implies adaptive actions by quickly detecting complaint and establishing customer satisfaction. With regard to learning from failure, KM uses complaints as learning instances and improving opportunities. 65.2% respondents were not sure whether their banks acquire information from external sources. The dissemination of knowledge is dominated by the system used in the organization. In other words, the information technology uses the local network or the Internet. In collecting information not all of it is useful. This represents a setback of an information system due to the overload of information since they may need just part of it, not all of it. The organization then has to select the best information to use so as to achieve an effective respite, capturing and avoiding as much as possible inefficiency in the decision making process (Barney, 2002). It was apparent that most banks did not encourage employees to attend fairs and exhibitions regularly. This is whereby 56.5% respondents chose neutral option. According to Salomann et al. (2006), some managers would encourage an organization culture whereby employees are willing and are motivated to create knowledge, share knowledge with others and make use of knowledge provided by others as well. Based on case studies, some authors found that while some managers pay attention to information gathering and sharing, there is a tendency among other managers to overemphasize information acquisition and to under-emphasize information interpretation that is conducive to knowledge creation (Chao Ton Su et al 2006). Such attitude is not congruent with productive KM.

#### *7.2 Level of organizational performance in commercial banks in Kisumu city.*

The second objective was to establish the level of organizational performance in commercial banks in Kisumu city. The organizational performance was based on a 5 point Likert scale. There were five questions in the research instrument. These questions looked at performance from the perspective of employee turnover, increase in customer base, branch profit, increase in number of ATMs and customer complaints. From Table 5 there is an indication of low employee turnover, customers increased by 43.5% between the range of 0-20% than other options given, bank branches' increase their profits by 47.8% between the ranges of 0-20% than other ranges given, also the number of ATMs increased by 47.6% between the range of 21-40%, and lastly customer complaints were average. Creating new knowledge depends upon the organization's culture and management in order to promote creativity, staff development and expression of new ideas, thus contributing to Innovation. KM provides employee's opportunities to enhance skills by working together, sharing other people's knowledge and also use information technology thereby increasing productivity, innovation and employee retention. Knowledge acquisition involves search for recognition and assimilation of potentially valuable knowledge often from outside the banking industry such as employees attending fairs and exhibitions. Anticipated improvements are the primary basis that banks use to judge the value of KM initiatives. After new knowledge is created, shared and acquired, utilization will take place through elaboration and thoroughness, in order to be helpful in facilitating innovations, customer satisfaction, and increase in profitability and employee retention. KM efforts can help individuals and groups to share valuable organizational insights, to reduce redundant work, to avoid reinventing the wheel per se, to reduce training time for new employees, to retain intellectual capital as employee's turnover in an organization, and to adapt to changing environments and markets (Thompson & Walsham, 2004), (McAdam & McCreedy, 2000).

### **7. Conclusion**

As much as knowledge acquisition is seen to have no relationship with organizational performance, the study recommends that organizations should always encourage their employees to attend fairs and exhibitions regularly, have a mechanism of acquiring information from external sources and have formal processes of acquiring knowledge about their customers and competitor within and outside their domain because competitive edge is abundance of company's suggestion attractiveness from the costumer's point of view in comparison with other rivals. For organizations to gain competitive advantage, they should improve their ability to share knowledge, that is, in order to acquire this, organizations should pay abundant attention to knowledge sharing components such as encouraging employees to participate in project teams, encouraging employees to use internets, intranets and extranets to support knowledge access and sharing of best practices among the different functional level.

### **References**

- Addicott. R., McGivern, G.,& Ferlie, E. (2006). "Networks, Organizational Learning and Knowledge Management: NHS Cancer Networks". *Public Money & Management* 26 (2): 87-94
- Alavi, M. (2000). *Managing organizational knowledge*, In R. W. Zmud (Ed.) Framing the Domains of IT
- Alavi, M., Leidner C, & Dorothy E. (2001). *"Review: Knowledge Management and Knowledge Management*

- Systems: Conceptual Foundations and Research Issues*". MIS Quarterly 25 (1): 107–136.
- Barney, J. (2002), "Resource-based theories of competitive advantage: a ten-year retrospective on the based-view", *Journal of management*, Vol. 27, pp 643-50.
- Bieber, M., et.al,(2002), Toward Virtual Community Knowledge Evolution, *Journal of Management Information Systems*, Vol.18, No. 4, pp. 11-36.
- Booker, L., Bontis, N., & Serenko, A. (2008). The relevance of knowledge management and intellectual capital research. *Knowledge and Process Management* 15 (4) 235–246.
- Borgonovo (2006). KPMG Peat Marwick U.S: *One Giant Brain*, Harvard Business School, Case 9-379-108.
- Chong, C., & Choi, S., (2005), Critical Factors in The Successful Implementation of KM, *Journal of Knowledge Management Practice*.
- Davenport, T., & Pruzac, L. (2000). *Working Knowledge: How Organizations Manage What They Know*, Harvard Business Scholl, Press, Boston, MA.
- Davenport, T., & Klahr, L. (1998). *Working Knowledge: How Organizations Manage What They Know*, Harvard 590-607.
- Davenport, T. (2008). "Enterprise 2.0: The New, New Knowledge Management?". Harvard Business Online, Feb. 19, 2008.
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). *Knowledge Management: an Organizational Capabilities*
- Hafizi, T. H., & Hayati, L. (2006). *Working knowledge: How organizations manage what They know*. Harvard Business School Press, Boston.
- Hansen, M. T., Nohria, N., and Tierney, T. (2002). *What's Your Strategy for Managing Knowledge?* Harvard Business
- Hendrike, P., 1999. Why share knowledge? *The influence of ICT on motivation for knowledge sharing*. Knowledge and Process Management 6(2), 91–100.
- King. (2007). *Knowledge Management and the Broader Firm: Strategy, Advantage, and Performance*, in *Knowledge Management. Handbook* (Eds. Liebowitz, J.), CRC Press, Boca Raton
- Kogut, B., (2000).The Network as Knowledge: Creative Rules And The Emergence of Structure. *Strategic Management Journal*, Vol.21, No. 33, pp. 405-425.
- McAdam, R., & McCreedy, S. (2000). "A Critique Of Knowledge Management: Using A Social Constructionist Model". *New Technology, Work and Employment* 15 (2).
- Moffett, S., McAdam, R., & Parkinson, S. (2002), "Developing a model for technology and cultural factors in knowledge management: a factor analysis", *Knowledge and Process Management*, Vol. 9 No.4, pp.237-55.
- Morey, D.,Maybury, M., & Thuraishingham, B. (2002). *Knowledge Management: Classic and Contemporary Works*. Cambridge: MIT Press. p. 451.
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, New York.
- Pemberton, D. et al (2002), *Black and Decker-Towards A Knowledge-Centric Organization*, *Knowledge and Process Management*, Vol.9, No.3, pp. 178-189.
- Serenko, A., & Bontis, N. (2004), "Meta-review of Knowledge Management and intellectual capital literature: citation impact and research productivity rankings", *Knowledge and Process Management* 11 (3): 185–198,
- Storck & Hill. (2000). *Working Knowledge-How Organizations Manage What They Know*, Harvard Business School Press
- Thompson, Mark P.A., & Walsham, G. (2004), "Placing Knowledge Management in Context", *Journal of Management Studies* 41 (5): 725–747, Vol. 9, No. 3.
- Van de Ven, A. H. (2005). *Central Problems in the Management of Innovation*. *Management Science*, Vol. 32 (5)
- Wright, K. (2005). "Personal knowledge management: supporting individual Knowledge worker performance". *Knowledge Management Research and Practice* 3 (3):156–165.